

CLAIMS

1. A light-emitting display comprising a panel having display areas, which may be lit or unlit, and unlightable areas, and comprising a sensor for ambient light, in which the display is arranged to use an output of the sensor to modify the brightness of the display areas when lit in dependence upon the ambient light conditions, and in which the sensor is mounted behind and is hidden by an unlightable area of the panel.
5
2. A light-emitting display according to claim 1, in which the display is an electroluminescent display.
10
3. A light-emitting display according to claim 1 or claim 2, in which the display is arranged to keep the perceived intensity of the display substantially constant across a range of ambient light levels.
15
4. A light-emitting display according to any preceding claim, comprising a display controller which determines what the display is showing, and how bright it is, in which the output of the sensor is connected to the controller.
20
5. A light-emitting display according to claim 4, in which the controller is arranged use the output of the sensor to adjust the brightness of the display according to a chosen function which increases with the measured ambient light level, the function being a mathematical function or a look-up table holding a range of pre-calculated values appropriate to an expected range of ambient light levels.
25
30
35

6. A light-emitting display according to any preceding claim, in which the display is arranged to ignore short-term drops in measured light level.

5 7. A light-emitting display according to any preceding claim, in which the display comprises a preferred contrast facility by means of which a user can set a desired contrast level, the display being arranged to scale the brightness to maintain the
10 apparent contrast as the ambient light changes.

8. A light-emitting display according to any preceding claim, in which the sensor is mounted within the bounds of the display panel and in the same plane.

15 9. A method of controlling a light-emitting display comprising a panel having display areas, which may be lit or unlit, and unlightable areas, the method comprising the steps of measuring ambient light
20 conditions using a sensor mounted behind the panel, and controlling the brightness of the display areas when lit in dependence upon the measured ambient light conditions.

25 10. The method of claim 9, further comprising keeping the perceived intensity of the display substantially constant across a range of ambient light levels.

30 11. The method of claim 9 or claim 10, further comprising the step of determining which display areas and lit and unlit and determining the brightness of the display dependent thereon.

35 12. The method of any of claims 9 to 11, further comprising using the ambient light conditions to adjust the brightness of the display according to a chosen function which increases with the measured

ambient light level, the function being a mathematical function or a look-up table holding a range of pre-calculated values appropriate to an expected range of ambient light levels.

5

13. The method of any of claims 9 to 12, in which short-term drops in measured light level are ignored.

10

14. The method of any of claims 9 to 13 further comprising the step of scaling the brightness to maintain the apparent contrast as the ambient light changes, in line with the setting of a preferred contrast facility.